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Suo motu Petition No. 61 of 2020

In the matter of:

Removal of difficulty in CSERC (Grid Interactive Distributed Renewable Energy Sources) Regulations, 2019 related to banking of IDRES.

PRESENT : **D. S. Misra, Chairperson**
: **Arun Kumar Sharma, Member**
: **Vinod Deshmukh, Member (Judicial)**

DRAFT ORDER (August24, 2020)

The Commission had notified CSERC DRE Regulations, 2019 with the objective to encourage investment in renewable energy generation in the State. These regulations specified terms and conditions for prosumer distributed renewable energy system (PDRES) and independent distributed renewable energy system (IDRES). Provision for banking of energy for IDRES is also a part of these Regulations.

2. Various representations on issues related to modalities of banking and wheeling have been made before the Commission by the parties interested in setting up RE based plants and also by those who are interested in getting energy from RE based plants. In this regard, a petition no 38 of 2020 was filed by one company interested in setting up solar power plant in the State for supply to various consumers in the State. While disposing this petition, in order dated 06.07.2020, the Commission decided to bring in regulatory clarity with regard to wheeling and banking, so as to attract investment in this sector and to ensure faster implementation of the projects. Relevant para of the order is reproduced below:

"As far as the provisions regarding banking of renewable energy is concerned, we are of the view that there is need for greater regulatory

clarity with regard to wheeling and banking, so as to attract investment in this sector and to ensure faster implementation of the projects. For example, although as per provisions of the DRE regulations, banking is permitted for the entire life of the project, existing regulations need clarifications on the following issues like:

(i) Mechanism for settlement of banked energy at the time of withdrawal of energy from Licensee; modus-operandi for banking transactions;

(ii) Mechanism for settlement of banked energy, if the user is having multiple sources of electrical energy supply such as open access, conventional captive generation and contract demand from licensee etc.;

(iii) Issues relating to wheeling of power to destination of use such as waiver of cross subsidy surcharge (CSS), transmission and wheeling charges for entire life of the Solar projects;

Therefore, for effective implementation of the provisions in the regulations regarding wheeling and banking of renewable energy, the Commission, in exercise of powers conferred under regulation 29 of the DRE Regulations 2019, needs to specify the detailed modalities for the same."

3. Therefore, the Commission has decided to register this suo motu petition for removal of difficulties as per provisions in clause 29 of the DRE Regulations 2019. Proposed modalities for renewable energy banking, accounting and settlement and wheeling are annexed with this Order.

4. Comments /suggestions of the stakeholders on these modalities are invited by September 17, 2020 and hearing will be held on September 21, 2020 at 03:30 PM at the Commission's courtroom.

**(Vinod Deshmukh)
Member (Judicial)**

**(Arun Kumar Sharma)
Member**

**(D. S. Misra)
Chairperson**

**MODALITY FOR RENEWABLE ENERGY BANKING, ACCOUNTING,
SETTLEMENT AND WHEELING**

As per the provisions in the DRE Regulations, banking of 100% energy by independent distributed renewable energy systems (IDRES) after netting is permitted for all captive and open access customers, which means all the energy injected to the grid (Net Generation = Gross generation – Auxiliary Consumption) qualifies for banking. Also, banking year shall be April to March.

Banked energy in a particular month shall be permitted to be carried forward to subsequent month within in same banking year. Unutilized banked energy at the end of the banking year shall be deemed to be purchased by the distribution licensee as provided in the DRE regulations. Thus banked energy shall not, therefore, be carried forward to the next banking year. Banking facility shall not be available for PDRES.

A. Injection end - Calculation of quantum of banked energy

At the end of a month, the total renewable energy injected during the month, the total renewable energy adjusted during the month, renewable energy adjusted from the previous banked energy during the month and net banked renewable energy for the month shall be worked out by the licensee from the time slot wise daily energy statement prepared by SLDC, with the downloaded meter data. The banking will be counted on daily basis for the purpose of monthly account. The Banked Energy shall be calculated by the licensee, from daily data from SLDC, at the end of a month as follows:

$$\text{Banked Energy at the end of month (Eb}^i) = \{Eg^i(1-a)-Ec^i\}*(1-b) + Eb^{(i-1)}$$

Where,

* Eg^i = Energy injected for the i^{th} month

* Ec^i = Energy consumption for the i^{th} month
(consumption end)

* $Eb^{(i-1)}$ = Energy Banked at the end of previous month

*a = Transmission and distribution losses as approved by the Commission in its Tariff Order for the relevant financial year, which is 6% for FY 2020-21 for the entire useful life of the solar plant

*b = Banking charges in kind, which is 2% as per Regulations

B. Consumption end - Settlement of banked energy, energy from other sources and retail supply

At the consumption end, the consumer can have power from following two sources:

- i. Open Access or wheeled power, which could be solar power, banked solar power, power from captive generating plant, power from power exchanges or any combination thereof
- ii. Retail Supply Power

The solar energy injection shall be adjusted as first charge in order of consumption of energy by a consumer. Settlement of energy consumed at consumer end, as per the installed ABT meter, shall be in the following priority except for peak months and peak period as specified in DRE Regulations.

- i. Solar energy injection after adjustment of transmission and wheeling charges in kind
- ii. Captive energy from the captive generating plant located at distant location after adjustment of transmission and wheeling charges in kind
- iii. Banked solar energy
- iv. Open Access energy through Exchange or any other source
- v. Energy of distribution licensee

However, during the peak months and peak period as specified in DRE Regulations, settlement shall be in the following priority:

- i. Solar energy injection after adjustment of transmission and wheeling charges in kind

- ii. Captive energy from the captive generating plant located at distant location after adjustment of transmission and wheeling charges in kind
- iii. Open Access energy through Exchange or any other source
- iv. Energy of distribution licensee

C. Consumption end - Scheduling of power

As per provisions in CSERC RE Tariff Regulations 2019, solar generating plant shall not be subjected to scheduling and deviation settlement. Scheduling and deviation settlement for other plants (i.e. Non-RE plants) shall be as per the provisions in appropriate Regulations.

The consumer shall submit time slot wise schedule of power required in MW to SLDC, on daily basis, for the next day, as per the provisions in the Open Access Regulations 2011, showing his energy drawl from the following sources:

- i. Solar Plant
- ii. Captive generating plant located at distant location
- iii. Banked Power
- iv. Open Access Power through Exchange or any other

Remaining power consumption, after adjustment of energy as above, if any, shall be deemed to be consumed from distribution licensee.

Further, in case of consumer of RE based captive generating plant (does not have conventional source of captive generating plant or Open Access), it shall submit Time of the Day (ToD) slot wise schedule of power in MW to SLDC, on daily basis for the next day showing his energy drawl from the following sources:

- i. Solar Plant
- ii. Banked Power

Remaining power consumption, after adjustment of banked power, if any, shall be deemed to be consumed from distribution licensee.

D. Consumer End - Tariff and other charges for energy

The cumulative energy drawn from the distribution licensee (necessarily during the peak hrs throughout the year and as per above

mentioned priority sequence) worked out as above shall be billed to the consumer as per relevant tariff category as per prevailing Tariff Order. Calculation of load factor, if any, shall be carried out on energy consumption from licensee only. Also VCA charges, if any, shall be applicable on the energy consumption from distribution licensee.

Billing for demand charges

Contact Demand shall be considered as summation of contract demand from licensee and contracted open access quantum.

Billing demand shall be actual maximum demand. Demand in excess of contract demand shall be treated as excess supply and shall be charged at one and half times of the normal tariff applicable.

All the conversion from kWh/KW to KVAh/KVA and vice versa, if any, shall be carried out with applying a power factor (PF) of 0.90.

E. Wheeling

For the open access from solar plant, Cross Subsidy Surcharge (CSS) and transmission and wheeling charges in cash shall not be levied for the entire life of the solar project. Also, SLDC charges shall not be payable for entire life of the solar project i.e. 25 years from CoD.

Transmission and wheeling charges in kind is approved by the Commission in its Tariff Order for financial year 2020-21. This shall remain applicable for entire life of the solar project.

F. Others

ABT meters, as per metering related regulation notified by Central Electricity Authority, shall be installed at generator as well as consumer end.

In case of breakdown of Grid / transmission lines and during the force majeure conditions, if power could not be evacuated or wheeled, then licensee shall not be liable to pay any compensation or damage or any claims whatsoever for any direct or indirect loss to Generator/CGP.

The surplus renewable energy purchased by distribution licensee will be eligible for RPO compliance of the licensee.